

REMARKS

By the above amendment, independent claims 1 and 7 have been amended to recite the feature of "the buffering/fixing material including conductive particles therein." That is, as described at page 27 of the specification in connection with (Embodiment 5), a trace amount of conductive particles, such as ATO, is mixed into the buffering/fixing 10, which avoids the occurrence of charging of the electrons in the buffering/fixing layer, which gives rise to problems, such as image retention and lowering of contrast. Thus, the newly recited features are fully supported in the specification of this application. Further, the claims have been amended to clarify the features that the buffering/fixing layer is provided between the distance holding members, which are provided within the display region and at least one of the front substrate and the back substrate.

The rejection of claims 1, 4-7 and 10-14 under 35 U.S.C. 103(a) as being unpatentable over Hattori (U.S. 5,599,749) in view of Uchiyama (U.S. 6,265,770), is traversed, insofar as of the rejection is applicable to the present claims, and reconsideration and withdrawal of the rejection are respectfully requested.

As to the requirement to support a rejection under 35 U.S.C. 103, reference is made to the decision of In re Fine, 5 USPQ 2d 1596 (Fed. Cir. 1988), wherein the court pointed out that the PTO has the burden under '103 to establish a prima facie case of obviousness and can satisfy this burden only by showing some objective teaching in the prior art or that knowledge generally available to one of ordinary skill in the art would lead that individual to combine the relevant teachings of the references. As noted by the court, whether a particular combination might be "obvious to try" is not a legitimate test of patentability and obviousness cannot be established by combining the teachings of the prior art to produce the claimed

invention, absent some teaching or suggestion supporting the combination. As further noted by the court, one cannot use hindsight reconstruction to pick and choose among isolated disclosures in the prior art to deprecate the claimed invention.

Assuming arguendo that Hattori provides the recited features as recited in independent claims 1 and 7 of this application, including as contended by the Examiner, that “a buffering/fixing material (not numbered; column 21, lines 60-67) is provided between at least one of the front substrate the back substrate and the distance holding members (see figure 29)”, the Examiner recognizes that “Hattori ('749) does not specifically teach that the buffering/fixing material is made of an adhesive material.” (emphasis added). Contrary to the position set forth by the Examiner, Applicants submit that Hattori specifically discloses the use of an “adhesive.” More particularly, column 21, lines 60-67 provide:

The counter substrate is attached to the electron emission source by a spacer 70 coated with adhesive, for the separation of the transparent conductive film 67 serving as the anode electrode from the emitter 64 by about 0.1 to 5mm. For example, glass of a low melting point is used as the adhesive. Instead of the glass spacer, adhesive such as epoxy resin containing dispersed glass beads may be used as the spacer.
(emphasis added)

Therefore, Applicants submit that Hattori specifically discloses adhesive in the form of a low melting point glass or an epoxy resin. However, it is apparent that Hattori provides no disclosure or teaching in the sense of 35 U.S.C. 103 of a buffering/fixing material which is formed by mixing an adhesive with a highly resilient material, as recited in independent claims 1 and 7 of this application. More particularly, as described in the paragraph bridging pages 21 and 22 of the specification, and the first full paragraph at page 22, the highly resilient material may be made of foamed resin, such as urethane resin, which possess high procedure

assembling and dissipates in the baking process, as recited in claim 1, or may be made of a heat-resistant aramid-based resin fibers of the like which do not dissipate by heating at a high temperature in a short time, as recited in independent claim 7. Irrespective of the Examiner's contentions that such features represent a product by process limitation, Applicants note that such represents a structural feature of the product, which can not be disregarded. Furthermore, as noted above, each of independent claims 1 and 7 now further recite the feature that the buffering/mixing material includes conductive particles therein, which feature is not disclosed or taught by Uchiyama in the sense of 35 U.S.C 103. Thus, Applicants submit that claims 1 and 7 and the dependent claims patentably distinguish over Hattori in the sense of 35 U.S.C. 103 and should be considered allowable thereover.

As pointed out above, Applicants submit that the Examiner has mischaracterized the disclosure of Hattori in that Hattori specifically teaches that the buffering/fixing material is made of an adhesive material, but fails to disclose or teach in the sense of 35 U.S.C. 103 that the buffering/fixing material is made of an adhesive and a highly resilient material, as well as that the buffering/fixing material includes conductive particles therein. As pointed out in column 21, lines 60-67, Hattori specifically discloses an adhesive in a form a low melting point glass or an epoxy resin, neither at which is provided together with a highly resilient material and conductive particles, as recited in independent claims 1 and 7, and the dependent claims of this application.

The Examiner contends that "Uchiyama ('770) teaches the use of a buffering/fixing material in a PDP that is made of an adhesive material (column 7, lines 5-26) in order to form a stronger bond. Thus, it would have been obvious at the time of the invention to one of ordinary skill in the art to combine the display device

of Hattori ('749) with the bonding material of Uchiyama ('770) in order to produce a stronger bond within the display device. (emphasis added). Applicants submit that the Examiner has mischaracterized the disclosure of Uchiyama, in relation to the claimed invention, and Applicants submit that the Examiner has engaged in a hindsight reconstruction attempt utilizing the principle of “obvious to try” which is not the standard of 35 U.S.C. 103. See In re Fine, supra.

Turning to Uchiyama, while this patent discloses a liquid crystal display device, as shown in Figures 3 and 4, comprising a front substrate and a back substrate (21a and 21b) having liquid crystal 22 sealed therein by a sealant 27, the substrate 21a extends beyond the substrate 21b and a circuit substrate 3 is adhesively secured to the substrate 21a at the extruding portions, and a liquid crystal driving IC 6 is joined to a surface of the circuit substrate 3 using ACF (anisotropic conductive film) as an adhesive. Irrespective of the contentions by the Examiner, Applicants submit that Uchiyama provides no disclosure or teaching of a display device as recited in independent claims 1 and 7, having in addition to a front substrate having anode phosphorus formed on an inner surface thereof, a back substrate having electrons sources provided within a display region on an inner surface thereof, an outer frame which is interposed between the front substrate and the back substrate, and distance holding members sandwiched between the front substrate and the back substrate in a erect manner within the display regions, so as to maintain the distance between the front substrate and the back substrate at the given distance, “wherein buffering/fixing material is provided between the distance holding members within the display region and at least one of the front substrate and the back substrate.” (emphasis added) That is, Uchiyama, while providing a front substrate and a back substrate, as shown in Figures 3, 4 and 7, for example,

assuming that the sealing material 27 of Uchiyama may be considered an outer frame, does not disclose or teach “distance holding members” which are sandwiched between the front substrate and the back substrate in an erect manner within a display region so as to maintain the distance between the front substrate and the back substrate at the given distance with buffering/fixing material provided between the distance holding members within the display region and at least one of the front substrate and the back substrate and the distance holding members. That is, the buffering/fixing material is provided within the display region, which is not disclosed or taught by Uchiyama. Moreover, contrary to the position set forth by the Examiner, the ACF of Uchiyama, which is an adhesive, is not utilized within the display region and is not provided between the distance holding members within the display region and at least one of the front substrate and the back substrate. Rather, the ACF of Uchiyama is only disclosed and taught as an adhesive for adhering a circuit substrate 3 to the light-transmissive substrate 21a, at a position outside of the display region and/or adhering an IC 6 to the circuit substrate 3. Moreover, Uchiyama also fails to disclose or teach that the buffering/fixing material, which is necessarily provided within the display region between the distance holding members and at least one of the front substrate and the back substrate, is formed by mixing an adhesive with a highly resilient material. That is, while the ACF, as disclosed in Uchiyama is an adhesive, there is no description or teaching of combining the ACF adhesive material of Uchiyama with a “highly resilient material.” Apparently, the Examiner refers to column 7, lines 5-26 of Uchiyama for the teaching of a highly resilient material in a form of a polyimide resin. However, Applicants note that the description at column 7, lines 18-26 of Uchiyama does not relate to the ACF, but rather to the “material of the circuit substrate.” (emphasis added). Accordingly,

not only does Uchiyama fail to disclose the provision of a buffering/fixing material in form of an adhesive and highly resilient material within the display region, but Uchiyama fails to disclose or teach a buffering/fixing material which is formed by mixing an adhesive with a highly resilient material between the distance holding members within the display region and at least one of the front substrate and the back substrate, in the sense of 35 U.S.C. 103. Of course Uchiyama, like Hattori fails to also disclose that the buffering/fixing material includes conductive particles therein. In this regard, while column 8, lines 12-14 describes the ACF 28, as shown in Fig. 4, for example, for adhering the circuit substrate 3 to the light-transmissive circuit 21a at a position outside of the display region may consist of electrically conductive particles, there is no disclosure or teaching of utilizing the ACF of Uchiyama within the display region, in the manner set forth. Thus, Applicants submit that independent claims 1 and 7 and the dependent claims patentable distinguish over Uchiyama in the sense of 35 U.S.C 103, and all of claims patentable distinguish over the combination of Hattori and Uchiyama in the sense of 35 U.S.C. 103 and all claims should be considered allowable there over.

As to the dependent claims, it is noted that claims 4 and 5 describe the highly resistant material as being a low-temperature decomposing foamed resin, such as urethane, irrespective of the Examiner's position, such features are not disclosed by Uchiyama. As noted above, the use of a polyimide resin is directed to the material of the circuit substrate 3 of Uchiyama, and not the ACF thereof . Again, such is not utilized within the display region. Again, with respect to claims 10 and 11 which depend from claim 7 and recite the resilient material as being heat-resistant fibers in the form of aramid-based fibers, Uchiyama does not disclose or teach such features within the display region. The utilization of aramid-based fibers in column 7, lines


18-26 of Uchiyama is for the material of the circuit substrate 3, and not for the ACF, as disclosed and taught by Uchiyama. Therefore, Applicants submit that the dependent claims recite further features not disclosed or taught by Hattori and Uchiyama in the sense of 35 U.S.C .103 and such claims should be considered allowable thereof.

In view of the above amendments and remarks, Applicants submit that all claims present in this application should be in condition for allowance and issuance of an action and favorable nature is courteously solicited.

To the extent necessary, applicants petition for an extension of time under 37 CFR 1.136. Please charge any shortage in the fees due in connection with the filing of this paper, including extension of time fees, to the deposit account of Antonelli, Terry, Stout & Kraus, LLP, Deposit Account No. 01-2135 (Case: 501.42899X00), and please credit any excess fees to such deposit account.

Respectfully submitted,

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